



ENVIRONMENTAL RENEWAL AND ECONOMIC REVITALIZATION SUCCESSSES

California's vast and varied history of industrialization, the economic devastation of closing military bases and loss of local industry (e.g., Northwest logging), the recent rash of natural disasters (floods, fires, earthquakes, mudslides) and social unrest such as riots in South Central Los Angeles are just a few of the factors which have contributed to the Brownfields phenomenon in the Golden State. Businesses have relocated, residential communities have followed in their path, and, as a result, what were bustling cities or rural industrial or commercial centers languish as shells of their former selves. These "Brownfields" are properties with active potential for redevelopment or reuse that lie fallow due to actual or perceived contamination.

In addition, given California's great geographic expanse and ceaselessly expanding population, "Greenfields" encroachment continues unabated, increasing the need for infrastructure (e.g., roads, schools, utilities, sewers) accompanied by tax increases, and carries with it traffic congestion, decreased air quality, increased crime and overall environmental degradation. Against this backdrop, local and state agencies, along with private industry, have adopted various approaches to revitalizing and recycling urban Brownfields properties.

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), has developed a number of initiatives to address Brownfields problems, and, where available, has complemented them with other State mechanisms. The following narratives chronicle how DTSC has administratively created and restructured two of its primary cleanup programs. Under its Voluntary Cleanup Program (VCP), and the traditional "State Superfund" program, DTSC has been successful in sustaining economic growth and development.

The projects described below are just a few that demonstrate how efforts to cleanup the environment have also served to create jobs, increase the local tax base and foster a renewed sense of pride in communities previously subjected to the decay of Brownfields and the stigma associated with contaminated properties. Based on figures available for only a handful of the following sites, DTSC's successful implementation of contaminated site remediation and reuse has:

- Cleared more than 1,400 acres for redevelopment
- Allowed for the creation of more than 21,000 jobs, with thousands more generated by pre- development and construction activities
- Increased current and future tax revenues by nearly \$475 million annually
- Provide for some 5,200 housing units, many of them single family dwellings
- Opened up over 13 million square feet of office, commercial, recreational and industrial space

DTSC's bold administrative reforms have contributed to California's renewed prosperity in Central, North Coast and Southern California.

CENTRAL CALIFORNIA

U.S. EPA Brownfields Pilot Grant Project

Federal Courthouse

and

Southern Pacific Rail yard and Sacramento Station – Multi-Use Residential, Commercial, Recreational, Transportation

In Sacramento, the cornerstones of the City of Sacramento's successful National Brownfields Pilot Grant (awarded by U.S. EPA in July 1995) are two Voluntary Cleanup Program (VCP) sites: the 220-acre Southern Pacific Rail Yard site; and the three-acre Federal Courthouse site.

The Southern Pacific Rail Yard has been used as a locomotive maintenance yard since its founding in 1863. Historical site activity included heavy maintenance and rebuilding of locomotives for the entire Southern Pacific Rail System, foundries, machine shops, painting, rail car manufacturing and painting. Identified soil and groundwater contamination associated with historical site activity includes: chlorinated solvents, petroleum hydrocarbons, polynuclear aromatic hydrocarbons, and metals. The site as a whole is currently under investigation as a State Superfund site. Given the downtown location of the Southern Pacific Rail Yard, Southern Pacific and the City of Sacramento developed a specific development plan for the area and entered into an innovative three-party Voluntary Cleanup Agreement with DTSC for post-certification remediation and reuse activities at the rail yard. Under the Agreement, DTSC will provide oversight of "clean" utility corridors, remediation during redevelopment, and land use change requirements. The proposed land use of the Southern Pacific Rail Yard will preserve its historical core, increase the City of Sacramento's open space by 35 percent, provide a state-of-the-art intermodal transportation center, and create 2,800 residential units, 9.6 million square feet of office space and 500,000 square feet of retail and entertainment space.

The three-acre Federal Courthouse site is composed of approximately ½ acre known as "The Sacramento Station Study Area," Southern Pacific Rail Yard Site, and approximately 2 ½ acres of City of Sacramento property. The Sacramento Station Study Area has been used for main line trackage, maintenance of way facilities, and iron and steel foundry, and passenger terminals. The Remedial Action Plan was completed December 7, 1989, and soil remediation was completed in May 1994. The City of Sacramento property was used as a fueling, maintenance and parking facility for the City of Sacramento Police Department. Under the VCP, the City of Sacramento remediated petroleum hydrocarbon, motor oil and antifreeze soil contamination during the excavation for the Federal Courthouse subterranean parking garage and foundation. Groundbreaking for the Federal Courthouse began in August 1995 for the \$142 million; 380,000-square-foot building that will produce more than 1,000 new construction jobs and 200 permanent jobs. The Federal Courthouse is the first new federal building to be constructed in Sacramento since 1961 and is the single largest construction project in the City of Sacramento's history.

Former Burn Dump
Self Help Enterprises Residential Use

Self Help, an organization specializing in assisting low income families construct their own homes, entered into the Voluntary Cleanup Program to address lead-containing ash deposits from the former burn dump, discovered during preparatory earthwork. DTSC oversaw the investigation and risk assessment, the cleanup plan and implementation of soil excavation, enabling Self Help to proceed with plans to construct 36 single family homes on the 10-acre parcel in Lemoore.

Louisiana Pacific Remanufacturing Facility
Multi-Use Residential, Commercial, Industrial, Recreational

Groundwater and soil is contaminated with heavy metals, formaldehyde, pentachlorophenol, solvents and PCB wastes from historical wood treatment and remanufacturing activities at this 136-acre State Superfund site in Chico. DTSC directed several removal actions and approved a Remedial Action Plan which addresses the site in parcels. Groundwater cleanup activities will continue concurrent with redevelopment activities. The site redevelopment plan proposes the following uses: 900 residential units; a light industrial/commercial park; restoration of historic buildings for a museum, a performing arts center and an open-air market; and a park with a public square.

Union Pacific Railroad Facility
Multi-Use Residential, Commercial, Recreational Education, Transportation

In Sacramento, Union Pacific operates a switching yard on part of a 94-acre parcel formerly used as a railroad maintenance facility. A State Superfund site, the remedial investigation showed heavy metals, solvents and petroleum hydrocarbon contamination, and asbestos. DTSC oversaw investigations, asbestos abatement, removal of 14,500 tons of slag and recently approved the Remedial Action Plan for the site. The 63 inactive acres are proposed to support one or more of the City of Sacramento's planning recommendations: low, medium and high density housing; open space and recreational facilities; commercial businesses; schools, or light rail stations.

Burn Dump Site
Lee Richmond Junior High School

The Hanford Elementary School District entered into the Voluntary Cleanup Program to address lead contamination from a burn dump site which was discovered prior to construction of the 10-acre Lee Richmond Junior High School. Following a risk assessment, excavation of soils, capping and recording of a deed restriction, the 700-student school constructed a baseball facility on the former burn dump.

Spring Valley Ranch
Twelve Bridges Golf Club

Placer Holding, Inc., used the Voluntary Cleanup Program to remediate copper sulfate in the soil under and around a concrete structure used by the Spring Valley Ranch near Lincoln. The structure held a solution used to treat livestock afflicted with foot rot. DTSC oversaw the investigation and remediation, and certified the site for unrestricted land use. The site area is now available for expansion of the 330-acre golf course.

City of Coalinga Asbestos Site
Large Retail Stores

From 1955 to 1980, the 107-acre Coalinga Asbestos site was active in the milling, manufacture, storage and transportation of asbestos mining materials. The Asbestos site was a State and Federal Superfund site. DTSC oversaw excavation and capping, building decontamination and dust control measures. DTSC then recorded a deed restriction and certified remediation of the site in 1991. A portion of the site now houses large retail stores, including KMart among others.

Zurn Industries

A complaint about illegal discharge of hazardous waste brought this Paso Robles site to DTSC's attention. Zurn Industries, which manufactures fabricated metals and employs 50 workers, entered into the Voluntary Cleanup Program to cleanup soils impacted by lead and copper around a sump. Appropriate closure of the sump and issuance of a "No Further Action" determination by DTSC allowed the company to expand a shipping and receiving loading dock. The site was remediated under DTSC oversight within nine months of initial contact.

NORTH COAST CALIFORNIA

U.S. EPA Brownfields Pilot Grant
Emeryville Redevelopment

More than 100 years of heavy industrial use has left large portions of this scenic 600-plus-acre City, situated on the San Francisco Bay shoreline, contaminated with petroleum hydrocarbons, metals and PCBs. Multiple Voluntary Cleanup Agreements between DTSC, Caltrans and the City of Emeryville Redevelopment Agency will culminate in the remediation of more than 100 acres of contiguous industrial sites, providing freeway access and making it possible for a larger 400-acre redevelopment plan to go forward. Strategically located at the hub of the East Bay retail market, the planned regional shopping, hotel and entertainment center will ultimately create over 520,000 square feet of commercial space, 8,000 jobs and 500 multi-family dwellings estimated to provide over \$3.2 million in sales and property tax revenues. Additionally, The U.S. EPA recently awarded the City of Emeryville a National Brownfields Pilot Grant. The grant strives to expand achievements by DTSC and other agencies in Emeryville by providing innovative financial funding and liability mechanisms for future parcel development.

San Francisco

Lead and other contaminants are often found in the fill material on which large parts of the City stand, affecting redevelopment of properties. DTSC, working together with the San Francisco Redevelopment Agency and nonprofit developers, assisted in the redevelopment of four of these sites into affordable housing units. The developers who remediated their properties under DTSC oversight were able to take advantage of the "Polanco Bill" liability protection. Also in San Francisco, DTSC worked with McDonald's Corporation to redevelop a property which had lain fallow for many years into a McDonald's Restaurant, creating approximately 60 new jobs and creating a convenient eating alternative for employees, jurors and visitors to the nearby Hall of Justice. DTSC has also worked with the California Highway Patrol to modernize its San Francisco facility.

Kaiser Shipyard
Mariana Bay Development

The Marina Bay Development is the former Kaiser Shipyard Number 2, in Richmond, California. The Site consists of approximately 200 acres, and was acquired by the City of Richmond Redevelopment Agency in 1982. Since that time, DTSC has worked with private developers and the City of Richmond to remediate and develop this State Superfund site. The remediation included consolidation and capping of lead-contaminated soils on one 10-acre parcel, reuse of petroleum-contaminated soil for a freeway embankment, and reuse of lime from the lime plant in soil stabilization and construction. The property now contains four apartment complexes, five condominium developments and three tracts of single-family dwellings containing over 400 houses. The development also contains a yacht club, marina, and five parks owned by the City of Richmond. The development is located on San Francisco Bay, and the parks include a restored wetlands. Over 2,500 workers were employed during the construction of the development, which now provides housing for over 5,000 people. The tax base generated by the Marina Bay Development is approximately \$300 million per year.

Trojan Powder Works
Robert's Landing Homes

After languishing for decades, developers found that DTSC's Voluntary Cleanup Program was the smoothest road to completing required remediation work in a way that met public concerns about wetlands restoration. After agreeing to redevelop 420 acres of wetlands along the San Leandro shore of the San Francisco Bay, the developer came to DTSC for a way to meet an ambitious construction schedule. Working under the terms of a Voluntary Cleanup Agreement signed in 1994, the developer remediated 80 acres of a former explosives plant, the Trojan Powder Works site, for 600 single-family homes and townhomes. Bayview model homes are expected to be open in early 1996.

PG&E Manufactured or "Town" Gas Site
Jack London Square Theater

As the Oakland Tribune reported, a new theater built atop a former Pacific Gas & Electric town gas site in West Oakland could, "... bring happy times to Jack London Square, which the city is trying to transform from a deserted industrial area into a regional entertainment hub." DTSC, working with the Port of Oakland and Theater owners under the VCP, oversaw the assessment, removal and capping activities, and recording of a deed restriction. Theater owners estimate that the \$7.5 million, nine-screen, 2,400-seat theater will create 40 jobs and draw 750,000 people each year to the area.

Basic Vegetable Site
Sports Complex and Industrial/Commercial Uses

Bordered by mixed residential and commercial neighborhoods just off of Interstate 80 in Vacaville, this VCP site once housed a food processing plant that dried onion and garlic for retail sale. The Vacaville Redevelopment Agency intends to remediate lead contamination at the site and develop it into a sports complex, and site industrial and commercial facilities that will provide between 800 and 1,000 jobs.

Cypress Freeway Reconstruction

In the Bay Area, DTSC and the California Department of Transportation (Caltrans) entered into a Voluntary Cleanup Agreement to allow reconstruction of the Cypress Freeway through West Oakland and Emeryville. The elevated roadway structure connecting Interstate 880 to Interstate 80 and the San Francisco/Oakland Bay Bridge was destroyed during the 1989 Loma Prieta Earthquake. The seven high-priority transportation construction projects will employ 2,050 people. Under terms negotiated between Oakland and Caltrans, many of those employed are from local and minority businesses, and Caltrans is supporting local job training programs. Along the revised replacement route, 34 contaminated sites are being investigated and remediated under DTSC oversight provided through the Voluntary Cleanup Program. The type of soil contamination typically encountered is closely related to present or past industrial use - heavy metals, volatiles and semivolatiles and petroleum hydrocarbons. In addition to constructing the freeway, frontage road and parking facilities, several businesses will be relocated. Also, Caltrans will build a neighborhood park.

Palo Alto Stanford Research Park

Working within the State Superfund program, DTSC worked with private developers to redevelop three properties within the Stanford Research Park (Hewlett-Packard Buildings 28 A, B, C, SmithKline and French Laboratories, and Teledyne-Singer sites) while these sites were being characterized and remediated. Redevelopment of these properties allowed DTSC to collect additional data from beneath structures and conduct appropriate removal action activities. By coordinating these activities, DTSC was able to minimize impacts to the redevelopment schedule, to ensure appropriate cleanup activities were conducted, and to see that ongoing State Superfund cleanup activities proceeded without impact. One of the three properties comprising the Hewlett-Packard Buildings 28 A, B, C site was redeveloped to increase the amount of office space available in the Stanford Research Park. At the SmithKline and French Laboratories site, a 92,000-square-foot industrial facility was demolished and 206 square feet of office space was constructed. Xerox Corporation, the current tenant, employs approximately 700 people at this location. At the Teledyne-Singer site, an aging building was demolished and a 22,000-square-foot facility was constructed for Lockheed Missiles and Space Company, Inc.

SOUTHERN CALIFORNIA

CalCompact Landfill ***MetroMall***

Carson, California, will become the home of one of the nation's largest manufacturers' outlet shopping malls as a result of the remediation of the 157-acre former CalCompact Class II landfill, a State Superfund site. During its operation, CalCompact received more than one-quarter million tons of hazardous waste, including DDT, metals-bearing wastes, paint sludges, herbicides and solvents. DTSC oversaw the investigations, recently approved the remedial action plan and negotiated a Prospective Purchaser Agreement for the site. Under the agreement, the developer receives a release from liability once a significant portion of remediation is completed. Constructing the 1.2 million square-foot mall will generate 1,500 temporary jobs in an area that currently suffers from a 9% to 10% unemployment rate. Local residents will be offered training and the first opportunity of employment. When complete, the mall will generate more than 5,000 permanent new jobs; the second phase will add an additional 4,200 jobs. The mall will increase annual sales revenues by \$23 to \$30 million per year.

Kaiser Steel Fontana ***The California Speedway***

Kaiser Steel operated a 13-acre Byproducts Area on its 880-acre integrated steel production facility from 1942 to 1983. Since shutdown, this State Superfund site has been investigated and remediated in phases and units or areas of contamination in order to expedite the overall remediation. The primary contaminants found in the byproducts area included volatile aromatic hydrocarbons and polynuclear aromatic hydrocarbons. DTSC approved a Remedial Action Plan for the Byproducts Area that included removal and treatment of waste, capping, soil vapor extraction, groundwater monitoring and recording of a deed restriction. Of note is that the cap is perhaps the largest engineered cap constructed in California. Kaiser spent \$6 million remediating the site. In a joint venture with Penske, Inc., Kaiser Ventures the site will become a motor sports complex which will generate \$125 million in new economic activity and create 1,200 new jobs.

Golden Eagle Refinery ***Carson Towne Center***

In July 1995, DTSC completed its first Prospective Purchaser Agreement (PPA) for the former Golden Eagle Refinery in Carson, a State Superfund site. The PPA is a three-party agreement between DTSC, the primary Prospective Purchaser and the site Responsible Party. The PPA's covenant not to sue extends from the primary Prospective Purchaser to future owners and occupants of the site as long as they abide by the agreement conditions. In the agreement, the Responsible Party agreed to continue operation and maintenance activities. Groundbreaking began in August 1995 for the Carson Towne Center. Forty acres of the site will become a 500,000-square-foot, open-air shopping mall, the Carson Towne Center. That project will generate approximately 2,000 jobs and tax revenues in excess of \$12 million annually. An additional 35 acres will be available for retail, high-tech, research and development, and industrial uses. DTSC directed a Responsible Party to conduct extensive remedial actions that consisted of excavation, bioremediation and air sparging/soil vapor extraction. Contamination found at the site included lead, petroleum hydrocarbons and solvents. DTSC certified the site in 1995, with the operation and maintenance continuing for a number of years.

Auto Body Repair and Paint Shop
Esperanza Elementary School

The Los Angeles Unified School District discovered that one-half acre of a 5-acre school site was contaminated with metals, volatile organic compounds and petroleum hydrocarbons, a legacy of previous use by an auto body repair and paint shop. The District entered into a Voluntary Cleanup Agreement to excavate and dispose of the contaminated soils. The inner-city school now serves 900 students with a staff of 90.

Culver City Kite
Retail Park

In Southern California, this 4.5-acre site once housed welding, die-casting, auto wrecking and construction businesses which left behind heavy metals, volatile organics and petroleum hydrocarbons. The Culver City Redevelopment Agency used the Voluntary Cleanup Program to enable redevelopment of the Culver City Kite site as a retail park that is estimated to provide approximately 100 jobs and tax revenues on a projected combined gross sales of over \$55 million per year.

Cropper's Plating
Public Ice Skating Facility

Under the Voluntary Cleanup Program, the San Dimas Redevelopment Agency remediated the former Cropper's Plating site in less than a year. The one-third-acre site once housed an electroplating facility that caused the soil to be contaminated with hexavalent chromium, nickel, copper and cyanide. The site is currently being developed as a public ice skating facility, which will provide as many as 60 full-time and part-time jobs.

Revere Copper Site
Truck Leasing and Maintenance

Previous copper and brass tube manufacturing, and hydraulic lift manufacturing, left heavy metals, solvents, petroleum hydrocarbons and PCBs on this 12-acre State Superfund site in Commerce. After directing appropriate investigations, DTSC oversaw removal of 14,000 tons of contaminated soil and certified the site in 1994, which cleared the way for the property owner to lease the lot. The tenant, a truck leasing and maintenance company, employs 20 to 30 employees full time.

Southern California Gas Manufactured or "Town" Gas Plants
Edna and Centinela Parks, and Auto Retrofitting Plant

Earlier in this century, many sites in California were home to facilities used to manufacture gas. The process of heating oil to separate lighter gas, sold for heating, cooking and lighting uses, left heavy residues. Those remnants, including tars and a finely-powdered carbon known as lamp-black, were disposed of onsite. Some of the chemical constituents of these residues, especially polynuclear aromatic hydrocarbons, have been shown to have adverse health impacts on animals. DTSC entered into Voluntary Cleanup Agreements with various parties to address the contamination at several sites in Southern California.

One of these sites is Edna Park in Covina. In one year, DTSC oversaw the site investigation and removal of 6,000 tons of contaminated soil, and subsequent restoration of the park. DTSC, the City of Covina, Southern California Gas utility company and the Covina community members received numerous commendations for their cooperative effort to restore the 1.3-acre neighborhood park. Members of the Community, DTSC, the City of Covina and the Gas Company contributed personal time in replanting the park. This project serves as a model of the benefits of teamwork, effective and efficient remediation and restoration which brought a renewed vitality to the local community.

In Inglewood, DTSC and Southern California Gas had similar success. In less than one year, DTSC oversaw investigation and cleanup of a 1.4-acre parcel of the 59-acre Centinela Park. The remedy included excavation of 5,000 tons of impacted soils. The remediation and relandscaping allowed return of the parcel to its use as a park, part of which houses preschool facilities.

The implementation of the Remedial Action Plan for the Olympic Base site in downtown Los Angeles involved excavation, groundwater monitoring and installation of an engineered asphalt cap that allowed for redevelopment of this industrial parcel. At present, the site houses a facility that retrofits automobiles from burning gasoline to using natural gas at the rate of 30,000 natural gas vehicles annually. In addition to reducing air pollution from vehicles, this facility created 48 new jobs for the City.

Hawthorne Yard & Shop
Los Angeles Metropolitan Transportation Authority

This Los Angeles site had a varied historical use during the previous three decades: aircraft parts production; Army missile plant; metal plating; degreasing and machining facility; a State of California record storage warehouse; and refuse truck storage and maintenance. After acquiring the property in 1991, the Los Angeles County Transportation Commission entered into the VCP to remove more than 12,000 tons of soil contaminated with halogenated and petroleum hydrocarbons, and heavy metals. The Metropolitan Transportation Commission now uses the redeveloped site as a vehicle maintenance yard and shop facility.

Western Magnesium Corp. Site
Office Building Close of Escrow

Fenton Western Properties entered into a Voluntary Cleanup Program Agreement to address property in Chula Vista which had heavy metals at low levels in groundwater. The proponent needed the documents to be reviewed quickly in order to close the real estate deal that would allow the property to be developed into an office building. After review of the site data, it was shown not to pose a health or environmental risk. Therefore, DTSC was able to issue a "No Further Action" determination in one week, which allowed escrow to close.

STATEWIDE

Cal-Mortgage Guaranteed Loan Insurance Program

Under a Memorandum of Understanding with a sister agency, Cal-Mortgage, DTSC reviews or performs Phase I assessments for their guaranteed loan insurance program for the construction, improvement and expansion of various health care facilities. The loan applicants are either public entities or non-profit groups.

FOR MORE INFORMATION...

To find out more about the California Environmental Protection Agency, Department of Toxic Substances Control's (DTSC) Brownfields Initiatives, contact:

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